



Pneumococcal Conjugate Vaccine, 7-Valent (PCV7)

Fact Sheet

January 2001

What is pneumococcal disease?

Pneumococcal disease results from infections caused by the bacteria *Streptococcus pneumoniae*, also known as pneumococcus. The most common types of infection caused by this bacterium include middle ear infections, blood stream infections (bacteremia), sinus infections, and meningitis.

Who is most likely to get pneumococcal disease?

Young children are much more likely than older children and adults to get pneumococcal disease. Children under 2, children in out-of-home group child care, and children who have certain illnesses (for example, sickle cell disease, HIV infection, chronic heart or lung conditions) are at a higher risk than other children. Pneumococcal disease is also more common among children of certain racial or ethnic groups, such as African Americans, Native Americans, and Alaskan Natives.

How common is pneumococcal disease?

Each year in the U.S. *Streptococcus pneumoniae* causes approximately 700 cases of meningitis and 17,000 cases of bacteremia or other invasive disease and 200 deaths in children under the age of 5. It also causes 4.9 million cases of middle ear infection annually in this age group.

How is a person exposed?

The bacteria is spread through contact between persons who are ill or who carry the bacteria in their throat. Transmission is mostly through the spread of respiratory droplets from the nose or mouth of a person with a pneumococcal infection. It is common for people, especially children, to carry the bacteria in their throats without being ill from it.

How can pneumococcal disease be prevented?

A new vaccine (PCV7) is now available for the prevention of pneumococcal disease in children. The PCV7 vaccine has been shown to be highly effective in preventing invasive pneumococcal disease in young children. A study of the PCV7 vaccine was conducted that showed the vaccine was 90% effective in preventing invasive pneumococcal disease among the children studied. The children also had 7% fewer visits to the doctor for middle ear infections and a 20% decrease in the number of ear tubes placed.

How is pneumococcal disease treated?

Pneumococcal disease is treated with antibiotics. Unfortunately over the last 10 years, many of the bacteria are not responding to the antibiotics anymore.

What are the symptoms?

Meningitis:

High fever, headache, and stiff neck are common symptoms of meningitis in anyone over two years of age. These symptoms can develop over several hours, or take one to two days. Other symptoms may include nausea, vomiting, discomfort looking into bright lights, confusion, and sleepiness. In newborns and small infants, the classic symptoms of fever, headache, and neck stiffness may be absent or difficult to detect, and the infant may only appear slow or inactive, or be irritable, vomiting, or be feeding poorly.

Pneumonia:

In adults, pneumococcal pneumonia is characterized by sudden onset of illness with symptoms including shaking chills, fever, shortness of breath or rapid breathing, pain in the chest that is worsened by breathing deeply, and a productive cough. In infants and young children, signs and symptoms may not be

specific, and may include fever, cough, rapid breathing, or grunting.

Otitis media (middle ear infection):

Children who have otitis media typically have a painful ear, and the eardrum is often red and swollen. Other symptoms that may accompany otitis media include sleeplessness, fever, and irritability.

Blood stream infections:

Infants and young children with blood stream infections (bacteremia) typically have symptoms that are not specific, including fevers and irritability.

Who needs to be immunized against pneumococcal disease?

In October 2000, the Advisory Committee on Immunization Practices (ACIP) recommendations and the Vaccines for Children (VFC) resolution for the seven-valent pneumococcal conjugate vaccine (PCV7) were officially published. These recommendations are as follows:

1. For routine immunization of:
 - a. All children two months of age up to the second birthday (although PCV7 can be administered as early as six weeks of age)
 - b. Children from 24 months of age up to the 5th birthday with the following conditions:
 - sickle cell disease, and other sickle cell hemoglobinopathies, congenital or acquired asplenia or spleen dysfunction
 - infection with immunodeficiency virus (HIV),
 - immunocompromising conditions, including
 - congenital immunodeficiencies
 - renal failure and nephrotic syndrome
 - diseases associated with immunosuppressive therapy or radiation therapy
 - chronic illness, including
 - chronic cardiac disease, particularly cyanotic congenital heart disease and cardiac failure

- chronic pulmonary disease (excluding asthma unless child is on high dose corticosteroid therapy)
- cerebrospinal fluid leaks
- diabetes mellitus

- c. Children from 24 months of age up to the 5th birthday who
 - are of African American, Native American, or Alaskan Native descent
 - attend out-of-home group child care

2. Children ages 24 months up to the 5th birthday upon request of parents after consultation with their health care provider

How much does it cost to get the PCV7 vaccine?

PCV7 will be available to children who meet the recommendations just like the other vaccines provided by Washington State. The vaccine is provided at no cost to the child, however some clinics may charge an administration or office fee.

For more information:

If you have questions, please contact your health care provider, your local health department or contact us at 360-236-3595 or

Visit the Department of Health website at www.doh.wa.gov/cfh/immunize or

Toll-free Healthy Mothers, Healthy Babies Information and Referral line – 1-800-322-2588.



Washington State Department of Health –
Immunization Program